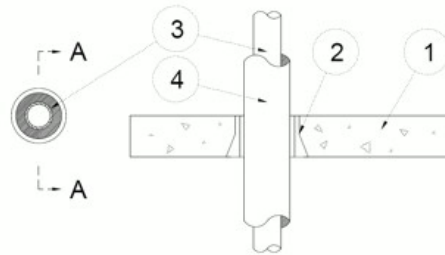
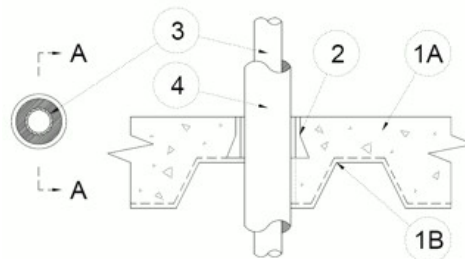


ANSI/UL 1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 1-1/4 Hr	FT Rating — 1-1/4 Hr
L Rating At Ambient — Less Than 1 CFM/device (See Item 4 and 5)	FH Rating — 2 Hr
L Rating At 400 F — Less Than 1 CFM/device (See Item 4 and 5)	FTH Rating — 0, 1/4 and 1-1/4 Hr (See Item 1)
W Rating — Class 1 (See Item 4 and 5)	L Rating At Ambient — Less Than 5.1 L/s m ² (See Item 4 and 5)
	L Rating At 400 F — Less Than 5.1 L/s m ² (See Item 4 and 5)



Section A-A

Config A



Section A-A

Config B

1. Floor Assembly — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete.

1A. Floor Assembly — (Not shown) As an alternate to item 1, The fire-rated unprotected concrete and steel deck floor assembly shall be constructed of the materials and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:

A. Concrete — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete.

B. Steel Floor and Form Units* — Composite or non-composite max 3 in. (76 mm) deep fluted galv units as specified in the individual Floor-Ceiling design.

2. Firestop Devices* — Cast in place firestop device permanently embedded during concrete placement in accordance with accompanying installation instructions. The device may project up to a max of 3-1/2 in. (89 mm) above top surface of floor or trimmed flush with top surface of floor. The devices are provided in nom 4 in. (102 mm) size.

RECTORSEAL — [Metacaulk Cast-in-Place Device](#)

3. Through Penetrants — One metallic pipe, tubing or conduit installed within the firestop system. Penetrant to be rigidly supported on both sides of floor assembly. The penetrant size shall be max 2-1/2 in. (64 mm) diam. The following types of metallic

penetrants may be used:

- A. **Steel Pipe** — Schedule 5 (or heavier) steel pipe.
- B. **Iron Pipe** — Cast or ductile iron pipe.
- C. **Conduit** — Steel conduit or steel electrical metallic tubing.
- D. **Copper Tubing** — Type L (or heavier) copper tubing.
- E. **Copper Pipe** — Regular (or heavier) copper pipe.

4. **Pipe Coverings*** — All Penetrants shall be provided with one of the following pipe coverings.

A. **Tube Insulation-Plastics+** — Max 1 in. (25 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing.

See **Plastics** (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5A may be used.

B. **Pipe and Equipment Covering Materials*** — Nom 1 in. (25 mm) thick hollow cylindrical heavy density glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product.

See **Pipe and Equipment Covering - Materials*** (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

4A. **PVC Jacket+** — (Optional) An additional PVC jacketing (Item 4,B), supplied in sheet form, shall be tightly wrapped around the all service jacket on the pipe covering with the longitudinal seam continuously sealed using the adhesive supplied with the jacket. The jacket is to be nom 48 in. (1219 mm) wide by nom 20 or 30 mil (0.5 or 0.8 mm) thick. The jacket shall be installed at a point 36 in. (914 mm) to 40 in. (1016 mm) above the top surface of the floor assembly and shall extend downward into and/or through the opening.

See Plastics (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

The PVC jacket (Item 4A) is required for all fiberglass pipe coverings for the W Rating to apply.

5. **Fill, Void or Cavity Material*** — **Caulk** — (Optional, Not Shown) - Caulk applied within device to finish flush with top surface of device. The minimum thickness and packing material shall conform to the following table:

Caulk	Minimum Thickness	Device Size	Packing Material
Metacaulk 835+ or Metacaulk 1200	1/4"	2 in, 3in, or 4 in.	Min. 3 in. thickness of min. 4.0 pcf mineral wool
Metacaulk 835+ or Metacaulk 1200	3/8"	6 in.	Min. 3 in. thickness of min. 4.0 pcf mineral wool
Metacaulk 150+ or Metacaulk 1200	1/2"	2 in, 3 in, 4 in, or 6 in.	Foam backer rod
Metacaulk 1000	1/2"	2 in, 3 in, 4 in, or 6 in.	Min. 4 in. thickness of min. 4.0 pcf mineral wool

RECTORSEAL — [Metacaulk 150+](#), [Metacaulk 835+](#), [Metacaulk 1000](#) or [Metacaulk 1200](#).

W Rating applies only when jacket (Item 4A), and (Item 5) sealant is used

*,+ Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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